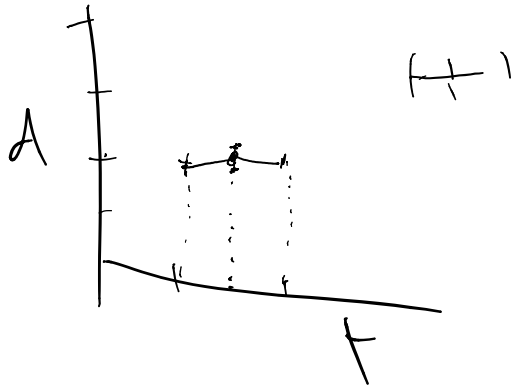
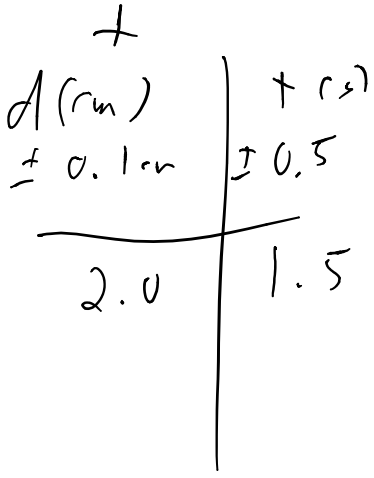
Look at Lab results
Graphing with uncertainties linear- non-linear
uncertainties worksheet
Hand out Hecht textbooks

density ρ = m/V
= 21.94 g +/- 0.01g /(5.08+/- 0.03cm x 1.25 +/- 0.05cm x 1.29 +/- 0.01cm)
2.67839 +/- (0.01/21.94+ 0.03/5.08 + 0.05/1.25 + 0.01/1.29)2.67839g/cm^3
about 5% +/- 0.1449g/cm^3
2.67839 +/- 0.1 g/cm^3
2.7 +/- 0.1 g/cm^3

graphing:
Include - title - something about the lab
axes - labels, units and a consistent scale
data points with uncertainty bars - plus sign with the length of the sides = uncertainty





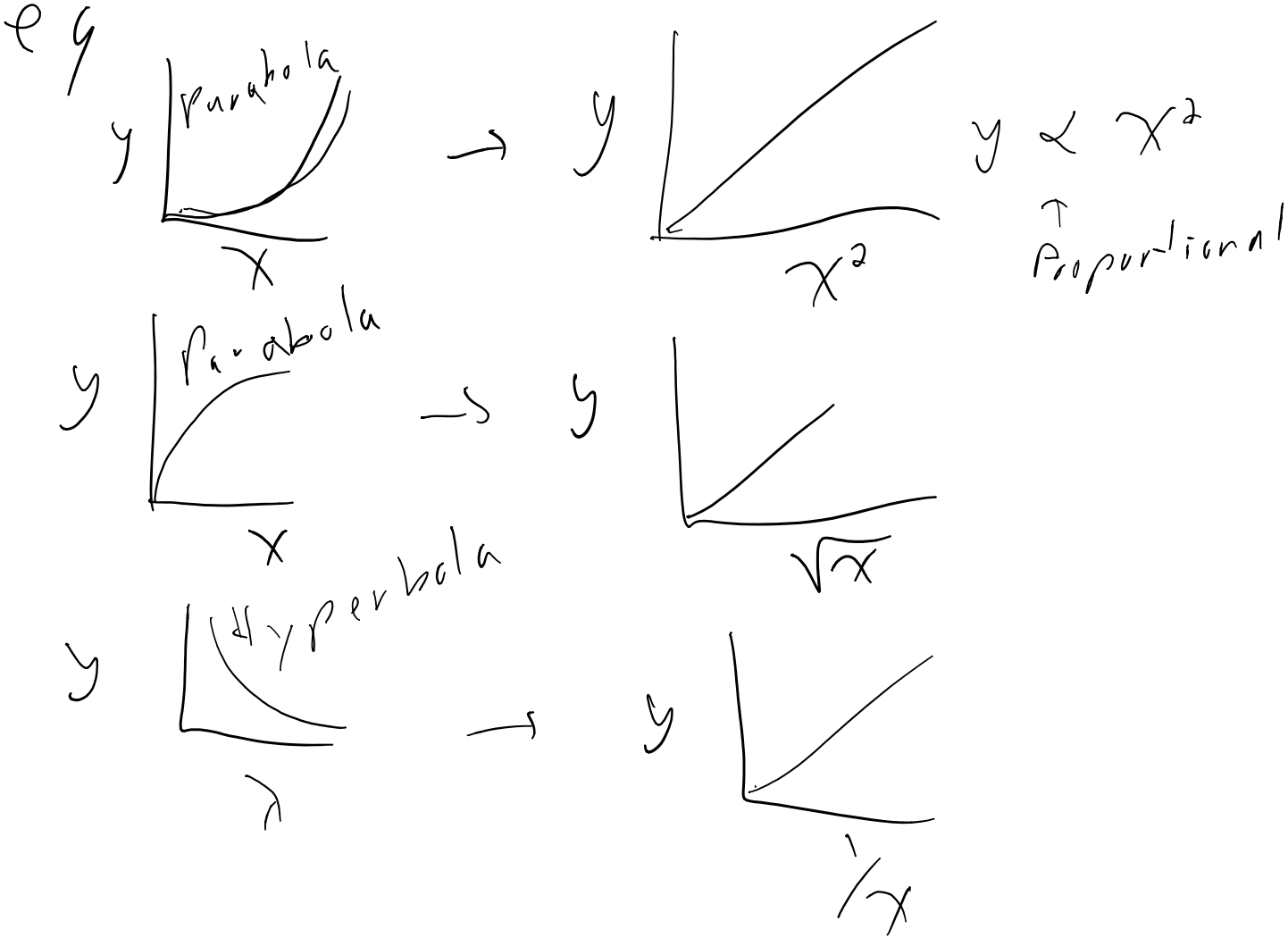
Draw a best-fit line - show the trend of the data, doesn't have to go through each point but it should go through the uncertainty bars
If linear, then use a ruler and draw 3 lines, the

average, the max and the min.
Calculate the slope from the average line, then get the uncertainty by taking the max slope-min slope/2
Get the y-intercept with uncertainty - use the y data uncertainty or the max-min line range/2 whatever is reasonable

replace each term in y=mx+b with your variables
eg. d = 2.0 +/- 0.1 m/s t + 0.12 +/- 0.02m

y m x b

non-linear - a mathematical transformation to linearize



sig fig worksheet

1a) 6 b) 4 c) 2 d) 2

a) 47.36 b) -1.960 c) 5.6×10^{2} d) 5×10^{3}

a) 708 even rule b) 2.30×10^{3} c) 3.35×10^{-4} d) 10.3

e) 19.0×10^{21}